

SIEMENS

Program Library Karlsruhe

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Product Information

AS 388/TM

Var. **M02.01**

Issue: July, 2000

Descriptors

TELEPERM M , AS 388/TM , Software variant M , UPGRADE , UPDATE

Summary

The present Product Information relates to the System Software Package:

Name	Variant	Issue	Product no. (MLFB)
AS 388/TM	M	02.01	6DS2 310-0XX00-0XA0
AS 388/TM upgrade / update	M	02.01 01.07	6DS2 310-0XX00-0XC2

Description:

Ergänzende Systemdoku.	AS 388/TM	German	C79000-G8000-C700
Supplem. System Docu.	AS 388/TM	English	C79000-G8076-C700

This manuals have to be ordered seperate if required.

1 Scope

The product information for the system software M02.00/M01.06 remains valid.
The following information represents a supplement.

The delivery consists of:

6DS2 310-0XX00-0XA0	6DS2 310-0XX00-0XC2 (Upgrade / Update)
AS 388/TM Memory Card	Diskette 3,5" with AS 388/TM software
Diskette 3,5" with tools for installation	Diskette 3,5" with tools for installation
Software contract and registration card	Software contract
Product Information	Product Information

Note on software protection:

The memory card must be considered as part of the CPU. If the memory card is removed during current operation, and if the AS 388/TM enters STOP as a result of the software protection, all modifications to the configuration are lost which have been made in the meantime and which have not been saved, as well as all modified inputs which have been made since the last save operation; I/O modules may be reset to the basic status.

1.1 Supplementary Documentation

In addition to the tools required for startup of your AS 388/TM, the commissioning diskette contains a document file for the service terminal:

ASBEDI_E.doc User description for the Commissioning Terminal (IBS terminal)

For further information by separate ordering to C79000-G8076-C700 please ask for a document diskette at A&D SE S11S. This information which may be useful when starting up is found in this file and the following files:

DIODEF_E.doc Description of the pin allocations for the DIO interface module
(for cabinet status signals, such as door contact, fan, etc.)

BUSINI_E.doc Configuration for operating your AS 388/TM on the PROFIBUS-
TM system bus

DP_PRO_E.doc Configuring the PROFIBUS-DP peripheral

The INI files that need modifying for the parameter settings can be found on the AS 388/TM memory card or the update diskette.

DP_BST_E.doc Description of the standard DP driver blocks

IP262_E.doc Description of the standard driver blocks for IP262

Please print out that document files and add them to your AS 388/TM documents. Failure to observe the information provided can result in a serious malfunction of the installation. If you do not have the corresponding Windows installation on your PC, your local Siemens representative will be pleased to help you.

1.2 AS system file for PROGRAF AS+

Your commissioning diskette contains a directory PROGRAF. This contains the system file AS.SYS required for PROGRAF AS+ (packed as file AS_SYS.exe).

Copy this file into a temporary directory on your PC and start there the file AS_SYS.exe (this file is then self-extracting).

Copy the file AS.SYS into your PROGRAF PC into the directory

drv:\PROGRAF\USER\

The system file of the AS 388/TM automation system is then known to PROGRAF AS+. Carry out your PROGRAF AS configuring in the usual manner.

The following version M02.01 contains an update of the system SW file AS.SYS, which has the following extension:

* DP4E/DP4A blocks:

Without these blocks, which belong to the DP add-ons, back-translating AS structures using these new drivers can cause PROGRAF AS+ to crash.

Note:

From PROGRAF AS+ V3.00 onwards, the AS commands FORM, LA; AR, and DI, are also allowed for online structuring.

After "LA,name;" PROGRAF AS+ terminates the coupling to AS 388/TM (message "BUS STRUCTURING ABORTED"). The coupling must be re-established after the loading and reset procedure is complete (new ANMS).

Caution: Under no circumstances should PROGRAF AS+ be stopped while the AS is being reset, as this causes the bus structuring in the AS to remain active. If it should happen nonetheless, the user of PROGRAF AS+ should logon on the same AS.

1.3 Master type file for COM ET200 / COM PROFIBUS

In the DOKU folder on the IBS tool diskette, there are two files for the ET200 configuration tool COM ET200 or COM PROFIBUS.

The master type-file 'SI8050AX.2MH' must be copied to the MASTERS directory of the installed COM PROFIBUS. Its contents specify the AS 388/TM as the host system and the module card IF964 as the DP master. The bitmap file 'AS388TM.BMP' must be copied into the BITMAPS directory. Once COM PROFIBUS is started, the 'Read in type files' menu item or the 'Read in GSD files' menu item from within the 'file' menu need be activated only once (see also DP_PRO_D.doc).

Note: In the case of COM PROFIBUS, these files are already supplied from V3.1 onwards.

2 Commissioning

The Memory Card contains the entire system software for AS 388/TM. It responds with the version ID M02.01 .

To perform an upgrade or update from diskette, an AS 388/TM memory card must be available.

The upgrade procedure is performed offline with a PC or a programming device having a compatible MC interface (e.g. PG740).

The update procedure is performed either from the IBS terminal (online) or from a programming device having a compatible MC interface (e.g. PG740).

Attention: DP drivers that are already installed must be reinstalled after the upgrade/update, and then archived together with the user structure.

A description of the upgrade procedure is provided under heading 2.2 in this document, of the update procedure under heading 2.3 .

Caution: The file RM3_PC1.SYS on the memory card must **never** be deleted or overwritten, as this would mean that the memory card would no longer be bootable!

If this happens nevertheless, the memory card can be restored on a programming device with the help of the upgrade diskette (see chapter 2.2.1).

2.1 Startup by Commissioning Terminal

Additional the diskette contains your local tool in the directory ASBEDIEN. Install this on your PC to be used for commissioning of the AS 388/TM according to the installation instructions in the document file ASBEDI_E.DOC in the directory ASBEDIEN, and connect your PC to the serial commissioning interface of your AS 388/TM via a serial interface.

For operation under Windows 3.1, a PIF file is delivered with the software. This contains the following settings: run in full screen mode, exclusive foreground execution, foreground priority very high.

For operation under Windows 95, the following setting should be specified: idle time activity very low; no screen saver.

Using your "Commissioning terminal" installed in this manner and the commands of the ASBEDIEN input program you can operate and monitor your AS 388/TM for install and diagnostic like an AS 235 and also access all data on the memory card inserted in the AS 388/TM.

Read the parameter files which have to be processed to enable parameterization from the memory card into a file on your PC using the command "COPY_PC ...". You can modify this file on your PC according to your system configuration using the ASCII editors which can be executed under DOS, and then write them back onto your memory card using the ASBEDIEN command "COPY_TM ...".

Note:

Before starting the UPGRADE/UPDATE activities, please ensure that a current backup of the customer's system and any files that are to be modified exists. This will allow the previous software version to be restored in the even of unforeseen circumstances. The files on the memory card are not write protected, so care should be taken when accessing the memory card.

To back up the files from the memory card to your archive, use the ASBEDIEN command "COPY_PC ...".

2.2 Procedure for Upgrade to M02.01 with Programming Device PG740

Stop your AS running (e.g. with STO) and then switch the AS off before pulling the memory card!

For the upgrade, insert the memory card into the MEM-CARD slot of the PG740. Now start the batch UPGRADE.BAT (if applicable, information on the memory card drive, default setting is E:):

This batch file

- creates a directory C:\UPGRADE.201 (for this, at least 2 to 8 MB must be free on drive C, depending on the size of the user software).
- copies all files from memory card into the upgrade directory.
- deletes the RMOS system file, as this can never be copied to the MC.
- deletes all BAK files.
- copies the packed upgrade files from disk into the directory (the system files to be upgraded are then overwritten).
- reformats the memory card and sets up the RMOS system.
- copies all files from the upgrade directory to the memory card

Now perform the following two steps:

- 1) Put the upgraded memory card in the allocated AS 388/TM and initiate a reboot of the AS (power on).
- 2) Install the new terminal program ASBEDIEN V1.07 to your PC from the diskette included with your delivery (IBS tools).

To check the update procedure, start the new ASBEDIEN and select the AS status screen (BT,STAT:@;). In addition to the start-up message, the system version (M02.01) is displayed.

Notes:

The upgrade batch runs under Windows 95 and 3.1, but not under Windows NT !

Subdirectories on the Memory Card will not be copied. These have to be saved to PC/ Programming device bevor starting the upgrade procedure.

The upgrade directory is not deleted. This means that, if an error should occur during the upgrade process, the process can be repeated.

Attention: If more than one AS 388/TM memory cards are upgraded the directory must either be deleted or renamed between the individual upgrade processes.

The directory can also be used as a backup copy of the entire AS software (system and user software).

This means that repairs can be carried out on memory cards with defective software (create directory UPGRADE.201, copy backed up file to it and start the batch file).

2.2.1 Restoring a Memory Card

This restore is necessary if the memory card is no longer bootable on an AS 388/TM (if it has been deleted with the SIMATIC Manager for example).

The procedure corresponds to an upgrade (see chapter 2.2).

Special features:

- Attempting to copy the old files from the memory card to the programming device, with a faulty (empty) memory card appears the error message:

Not ready when reading from drive E:
Ignore, retry, error ?

This message has to be acknowledged with 'i'. After that the MC will be formatted.

- Afterwards some INI files have to be copied from the directory A:\INI to the memory card and modified specifically for the user:

AS_KOM.INI	settings for the system bus
DP1.INI	parameters for the 1st DP thread
DP2.INI	parameters for the 2nd DP thread
L2AMPRO.INI	parameters for the system bus PROFIBUS-TM
STARTER.INI	starting parameters (poss. enter add-ons)

If the display of the AS 388/TM serial number (380xxx) in BT,STAT:@; is faulty, please contact the TELEPERM M hotline (Tel. +46 721 595 4400)!

2.3 Procedure for Update M01.06 (resp. M01.05/M01.04) to M01.07

2.3.1 Update by Commissioning Terminal

You will find the files needed for an update on the UPGRADE/UPDATE diskette too. Please copy the files M01_07.exe from directory A:\UPDATE_M.107 and AS388_V2.exe from directory A:\AS_SW.201 to the directory 'C:\ASBEDIEN' on your Commissioning Terminal PC or into the current working directory (e.g. C:\TEMP is specified in ASBEDIEN.PIF). After these self-extracting files have been started you find there the files listed below.

On the Commissioning Terminal PC connected to the AS 388/TM, start the program ASBEDIEN.exe (via ASBEDIEN.PIF under Windows, so that the program runs in full screen mode and without a screen saver).

Now, in command mode, copy the files previously backed up to the PC to the memory card in the AS in the following sequence:

```
<ESC>COPY_TM IBS_BEDI.386    resp. <ESC>COPY_TM C:\ASBEDIEN\IBS_BEDI.386
<ESC>COPY_TM STARTER.386    resp. <ESC>COPY_TM C:\TEMP\STARTER.386
<ESC>COPY_TM BEDIEN.386      ...
<ESC>COPY_TM BUSTASK.386
<ESC>COPY_TM EATASK.386
<ESC>COPY_TM LA_AR.386
<ESC>COPY_TM EMULATOR.EXE
<ESC>COPY_TM FUNC.EXE
<ESC>COPY_TM C_EAM.EXE
<ESC>COPY_TM AR_DG.EXE
<ESC>COPY_TM RMOS.INI
<ESC>COPY_TM M7_235AR.SYS
<ESC>COPY_TM VERSION.TXT
<ESC>COPY_TM DP_TREIB.NL
<ESC>COPY_TM IP262.NL
<ESC>COPY_TM FENS.NL
```

If necessary, the following files (in directory A:\INI) should be modified in accordance with the new configuration guidelines.

AS_KOM.INI	settings for non-redundant operation of the system bus
DP1.INI	parameters for pull&plug, diagnosis and ODIS
DP2.INI	parameters for 2nd DP line
L2AMPRO.INI	parameters for system bus PROFIBUS-TM

After a successful transfer, exit ASBEDIEN (with Alt-X).

Now perform the following two steps:

- 3) Initiate a reboot of the AS 388/TM (reset or off/on)
- 4) Install the new terminal program ASBEDIEN V1.06 to your PC from the diskette included with your delivery (IBS tools).

To check the update procedure, start the new ASBEDIEN and select the AS status screen (BT,STAT:@;). In addition to the start-up message, the system version (M01.07) is displayed.

Note: If there is already a version M02.00 on the memory card, you can use the file M02_01.exe from directory A:\AS_SW.201 instead of the file M01_07.exe for the online update (additionally to AS388_V2.exe). From this results a version M02.01!

Attention: The data transfer was only successful if the command COPY_TM ends without error messages, and without any manual intervention (e.g. termination with ESC). In the case of errors, the copy procedure must be repeated.

If problems occur during the data transfer (frequent terminations), we recommend the following procedure:

- If the first file (IBS_BEDI.386) was transferred without errors, the AS can be rebooted with the new emergency utility disk (press MRES during switch-on). Together with the new ASBEDIEN V1.07, an error free transfer can be expected.
- Before the next RESET, the files IBS_BEDI.386 and STARTER.386 must be successfully transferred.

2.3.2 Update by Programming Device PG740

Before starting the UPDATE activities (pulling the memory card), please ensure that a current backup of the customer's system and any files that are to be modified exists. This will allow the previous software version to be restored in the even of unforeseen circumstances.

Stop your AS running (e.g. with STO) and then switch the AS off before pulling the memory card!

Copy the files listed under 2.3.1 from the upgrade/update diskette into a new directory having the 'name' of your PG740. Then start the self-extracting files, and delete them after that so that the extracted files remain only.

For the update, insert the memory card into the MEM-CARD slot of the PG740. Now copy all files from the directory 'name' onto the memory card (either using the file manager or explorer, or using a DOS box):

```
COPY name\*. * E: /y
```

Now perform the following two steps:

- 1) Plug the upgraded memory card of the AS back into the allocated AS 388/TM and initiate a reboot of the AS 388/TM (power on).
- 2) Install the new terminal program ASBEDIEN V1.07 to your PC from the second diskette included with your delivery (IBS tools).

To check the update procedure, start the new ASBEDIEN and select the AS status screen (BT,STAT:@;). In addition to the start-up message, the system version (M01.07) is displayed.

2.4 Installation of the reloadable DP driver blocks (DPAE, DPAA, DPBE, DPBA)

In addition to the execution system and the standard blocks of the AS 388/TM, your memory card contains a so-called reloadable file with the optimized driver blocks for the PROFIBUS-DP I/O bus. These blocks are not present in the system data area of the AS, and are thus not activated automatically. You can load these blocks into your user memory and activate them.

To do this, install your "Commissioning terminal" and transfer the blocks from your memory card to the user memory of your AS using the operation "LA:DP_TREIB.NL;". The loaded blocks must then be parameterized to the type numbers provided in their application, and activated. You activate the parameter settings in the AS input mode using the input instruction "BT,DP:@;".

Set the desired type numbers of the DP blocks in the parameterization display using the parameters 1, 3, 5 and 7. If this blocks already are existing in the AS, the existing type numbers were accepted. Your parameter settings are accepted using the parameterization input "P,9,1;", and the blocks are stored in the user memory of your AS. The activation procedure can be previously aborted using "P,11,1;". The reloaded file is then no longer present in your AS. However, you can carry out the installation procedure from the beginning.

If you already have installed DP driver blocks and you want to update your system software, you have to update the algorithm of the DP driver blocks!

After successful activation, the user structure and the driver blocks must be re-archived to the memory card, otherwise they will be lost during the next boot procedure.

Note: The data structures of the DP driver for CP581TM (in AS230/235) and AS 388/TM are identically, but the program algorithms have to be exchanged. With transferring of old user structures to AS 388/TM, following steps have to be done:

- Install matching driver programs: "BT,DP:@;" (see above).
- Input again the parameters BGNR and BADR in all block instances, even if there value doesn't change (the check has to be run through).

Note: DPAE driver and analogue input modules with NAMUR range of values for wire breakage

The DPAE driver does not know the NAMUR range of values for wire breakage (e.g. AE module 6ES7 331-7RD0). However, with correct configuration, the AE modules can be made to return the S7 standard value, 7FFF (hex), if a wire does actually break, this is then interpreted by the DPAE driver as a wire breakage: in order to do this, the release of the wire breakage diagnosis should be parameterised using COM PROFIBUS (further information can be found in the S7 manual 'Ex-peripheral modules', which can be ordered quoting reference no. C7900-G7076-C150).

2.5 Installation of the reloadable IP262 driver blocks (RIP, KRIP)

In addition to the execution system and the standard blocks of the AS 388/TM, your memory card contains a so-called reloadable file with the optimized driver blocks for the controller module IP262. These blocks are not present in the system data area of the AS, and are thus not activated automatically. You can load these blocks into your user memory and activate them.

To do this, install your "Commissioning terminal" and transfer the blocks from your memory card to the user memory of your AS using the ASBEDIEN command "LA:IP262.NL;". The loaded blocks must then be parameterized to the type numbers provided in their application, and activated. You activate the parameter settings in the AS input mode using the input instruction "BT,IP:@;".

Set the desired type numbers of the driver blocks in the parameterization display using the parameters 1 und 3. If this blocks already are existing in the AS, the existing type numbers were accepted. Your parameter settings are accepted using the parameterization input "P,7,1;", and the blocks are stored in the user memory of your AS. The activation procedure can be previously aborted using "P,9,1;". The reloaded file is then no longer present in your AS. However, you can carry out the installation procedure from the beginning.

After successful activation, the user structure and the driver blocks must be re-archived to the memory card, otherwise they will be lost during the next boot procedure.

2.6 Extension software packages for AS 388/TM

PLC/PLC Link:

Together with the system software version M02.01 a new version V2.00 is released for PROFIBUS-PLC/PLC. Updating this software package is not necessary absolutly. The add-ons and error corrections included in the new version, are described in the accessory product information (order no. 6DS5 124-1AA).

SIWA block:

The version V1.02 of the driver for SIWAREX M can further be used unchanged (order no. 6DS5 470-1AD).

PROFIBUS-PA Link:

The special version M02.00.01 delivered with this software package has been included in the standard system software M02.01, i.e. the modules from the directory \M02_00.01 on the diskette "Linking PROFIBUS-PA to AS x88/TM" must no longer be copied on the memory card with M02.01 or M01.07 !

The version V1.00 of the file PA_TREIB.NL delivered with this software package can further be used unchanged (Order no. 6DS5 130-8AA or -8AB)

3 Removed Errors

- F: Function concerned
- A: Appearance
- M: Modification

- F: Parameter writing via bus
 - B: With parameter write telegrams from OS or non-system computers there could happen overwriting within the system data, if the target input has the default connection (PROM bit).
 - Ä: Writing will be prevented (with error bit within the response telegram).

- F: Central configuration via bus
 - A: After breaking off a filing via bus, a log on for central configuration via bus is frequently not accepted.
 - M: If the filing function is still active at ANMS, the filing is stopped and the display enabled.

- F: S5KS block
 - A: If the S5KS has to send analog values from 2 GA data blocks, wrong values are transmitted for a single time.
 - M: Block corrected.

- F: Floating point values
 - A: During input of double-precision floating point values occurs the incorrect message "F426 – Parameter is of a different type", if the exponent for example violates the allowed limits.
 - M: Error message changed to "F462 – Incorrect analog value".

- F: Floating point values
 - A: At floating point values with huge exponent (near allowed limit) calculation errors may occur.
 - M: System program corrected.

- F: DP drivers
 - A: When accessing an area within the process image of a DP slave behind the equipped and configured range (e.g. parameter BADR too large), the DP drivers report no time-out (S305 and fault bit).
 - M: System program corrected.

- F: Visualization block FENS
 - A: This block displays no or wrong values for the DP process image, if the relative address in the process image is > 64 bytes for this values.
 - M: Block corrected (reloadable file FENS.NL).

- F: DP and IP262 driver blocks
 - A: The central check bit of the RIP and KRIP blocks is deleted by the extracting function (BT,IP:@;). The same happens to the DP drivers (BT,DP:@;). This may cause errors at "D,...;" and "L,...;".
 - M: Extracting functions corrected in IP262.NL and DP_TREIB.NL

- F: KRIP block (IP262)
 - A: If the KRIP was filed in the active state, this active flag prevents further working after loading/booting.
 - M: The KRIP blocks are resetted after each loading procedure.

- F: DP_PRO_E.doc
 - M: The documentation of the DP configuration has been revised and compemented.

- F: DP_BST_E.doc
 - M: The description of the parameter DPTY has been reviced for all DP driver blocks in the DP driver block documentation.

- F: Display of PLC/PLC Link in status overview
 - A: The PLC/PLC Link is displayed as existing device in the status overview, even if the initialization was unsuccessful (because of missing/defective IF964 module or missing/faulty file AGAG_KOM.INI).
 - M: In the status overview the PLC/PLC Link is only displayed, if the initialization has been successful. By this, the display of the device 'PLC/PLC Link' in the status overview (BT,STAT:@;) shows the same reaction as the display of the existing DP threads.

- F: SYST.WART: display of the own PROFIBUS-PLC/PLC address
 - A: Sporadically the own PROFIBUS address at the PLC/PLC connection bus read from the IF964 DP module, is not displayed after the manual enabling of the PLC/PLC Link during the SYST.WART configuration.
 - M: This behaviour has been corrected by increasing the monitoring time.

- F: Commissioning terminal
 - A: Now and then the connection between ASBEDIEN and PLC may break off. Very rarely the AS 388/TM has to be rebooted to set up the connection again.
 - M: In the present version the time-out monitoring has been improved to prevent operating locks.

- F: Commissioning terminal
 - A: Problems after connection break-off
 - M: The chapter 5 (Start connection to the AS) in the documentation ASBEDI_E.doc has been extended. Additionally the display transmission has been modified with version 1.07 of ASBEDIEN, to enable the user to recognize and raise the actual operation state (e.g. NEMO/NEDA active).

- F: Upgrade batch
 - A: Under DOS 6.2 a wrong option causes the break of the copy command.
 - M: Batch on the upgrade diskette corrected. Additionally extension for restore purpose (see chapter 2.2.1).

Special version M02.10:

The extended functions for the SIDRAS package included in the special function M02.10 are described below. This changes has been included in the standard system software M02.01 .

- F: Reading parameters via bus
 - A: At transmission via bus the alarm bit was concealed, because it is not used by OS normally.
 - M: Now all code bits are transmitted.

- F: Reloading
 - A: At reloading very rarely there could occur a stack overflow (because of interlaced PROBLEM calls within RESTART blocks).
 - M: System programs modified.

- F: Code bits in the CHECK interface
 - A: Since version M02.00, which prevents an error propagation, code bits set in SL.PCHE.BINW could be deleted.
 - M: These code bits now survive.

4 Extended Functions

4.1 Add-ons for PROFIBUS-DP

Those parts of the software extension package " DP add-ons" (order no. C79451-A3496-D900-A2) delivered as preliminary version M02.20 have been integrated in the system software M02.01/M01.07 .

In addition the error below has been corrected in this add-on:

- F: SYST.WART: configuring the module width BB
 - A: Sporadically it was not possible to set the module width BB=2. Additionally the module width BB=1 (64 bytes) could be set as a wrong default.
 - M: The sporadically lock for setting the value BB=2 for the module width has been removed, and the default value has been set to BB=2.

The description of the new functions (up to 122 slaves per DP thread, linking ET200X and ET200S, connection of the AS-i bus to DP, connection of S7-CPU315 and S5-AG95U, new driver blocks) is included in this extension package.

Diagnosis messages on PROFIBUS-DP:

Optionally the last diagnosis message of each DP slave is entered into the buffer STRT.DPGD up to a length of 64 bytes. For the DP slaves belonging to ET200M/B the pull and plug messages (with ET200M) and the S7 process messages are entered into the cyclic buffer STRT.DPKD additionally. There they can be read and evaluated by the user.

Optionally all diagnosis messages with whole length and from all connected DP slaves (including these from other manufacturers) can be entered into the cyclic buffer STRT.DPKD now. Further informations are included in the configuration manual (file DP_PRO_E.doc).

Restart on PROFIBUS-DP:

In the system software M02.01/M01.07 the restart reaction at PROFIBUS-DP has been revised. During restart the DP slaves and their sub-modules remain in the (configured or default) security state. The short-time output of zero values by the DP master so far has been eliminated. The synchronization of DP master and PLC runtime system has been improved. The outputs to the DP peripherals take effect first after one pass of the PLC cycle 3.

4.2 General extensions

- F: Function concerned
- A: Appearance
- E: Extension

- F: Central configuration via bus
 - A: If the log on on another AS is rejected, because this AS is connected with another device via bus, the information about the connection partner is missing.
 - E: Now the connection partner of the target AS is displayed at ANMS. In the own AS the bus address of the connected system is displayed at BT,STAT:@;.

- F: SYST.WART: configuration of the peripherals
 - A: There is missing an information program displaying the assignment of all defined driver blocks to a module number, to avoid wrong configurations.
 - E: New menu item in SYST.WART: "BGNR in Baustein suchen" (searching module number BGNR in block).

- F: Filing on Memory Card
 - A: If a faulty user structure has been filed on the memory card, the AS 388/TM maybe STOP after a restart (boot).
 - E: The file written to the memory card is checked after filing. If an error was found, the new error message F396 – "Filed structure is faulty" is displayed, and the entry in the file LA_AR.INI is deleted. Without this entry the AS 388/TM will be able to start up after the next boot procedure (with empty memory).

- F: Commissioning terminal
 - E: Within the program ASBEDIEN the function key F9 now is filled with the frequently used inquiry function "BT,STAT:@;".

- F: Transmission of S5 floating point values
 - A: For displaying floating point values, the S5KS and S5KE blocks have to convert between TELEPERM and S5 format. This conversion has been done on TML level so far.
 - E: The conversion between TELEPERM and S5 floating point values has been shifted on machine language level. This causes a much shorter time for transmitting floating point values.

5 Limited operating performance

No safety-relevant faults are currently known; the known faults are assigned to fault class 3 and lower.

Caution:

When working on initialization files (*.INI), tabs (09H) should not be used. Spaces (20H) should be used instead. Failure to comply could lead to interpretation errors.

AS 388/TM with PROFIBUS-DP I/Os:

The process image length per slave station via PROFIBUS-DP is limited by the IF964-DP to 122 bytes. It is thus possible to operate up to 7 analog modules with 8 channels each in one slave station.

New modules can only be released for operation on the AS 388/TM by publishing them in the PLT 112 Catalog, or as an addendum to TELEPERM M - *aktuell*.

When configuring ET200 I/O modules using COM ET200M, the value for the internal monitoring time is calculated too low by the tool. The result may be that I/O modules are not recognized (removed from COM PROFIBUS V3.0).

Remedy: Increase the value calculated by COM ET200M by a factor of 2.

Further information:

The arithmetic accuracy of the AS 388/TM with floating-point numbers is higher than that of the AS 235. There may therefore be small deviations in the last digits of the mantissa in the case of calculated analog values or floating-point constants in TML.

The CD coupling is not implemented in the AS 388/TM.

Any attempt to register a CD coupling from OS or AS 235 will be rejected.

Remedy: When importing structures, CD couplings must be replaced by DI couplings before loading.

Loading a filed structure from AS to AS using the command "LAB,name;" is only possible from an AS 235 with a diskette drive. Saving from AS to AS on diskette using the command "ARB,name;" is only possible on an AS 235 with diskette drive. Use of an AS 388/TM as the central configuring station is not envisaged, i.e. the LABR and ARBR commands are not possible from the AS 388/TM and may lead to malfunctions.

When using the function "Read RAM" by PROGRAF AS+ from an AS 388/TM, the number of transmit telegrams per cycle in the AS is limited by the parameter settings of FSA,ORPA in the AS 388/TM (A,FSA,ORPA; F; P,26,10;).

Structuring of I/O modules with STRUK-EA via the system bus (PROFIBUS-TM) has not been released for AS 388/TM.

S5KS Blocks:

When projecting S5KS blocks, special care must be taken to ensure that these are always placed in the same cycle for the same module and the same channel. The S5KS blocks use a joint send buffer for each module and channel. If this send buffer is accessed at the same time by two cycle levels (for example, by cycle 2 and 3) with the S5KS blocks, the send data to be transported can occasionally be corrupted or destroyed when it enters the send buffer; the receiver then receives corrupt data.

Time after network is switched on:

On rare occasions it may be the case that, despite the battery memory, the time on the AS 388/TM is reset to 01.01.94 / 00:00:00 when turned on.

Correction (offline):

Start a terminal program (e.g. windows terminal or HyperTerminal) on the IBS terminal PC, which is connected to the serial port COM1.

Settings: 19200 Baud, no parity, 8 data bits, 1 stop bit.

Then call up the BIOS setup (press Q and switch on the CPU).

Set the correct date in the setup menu and save the settings.

After this has been set once, the battery memory will function for the date and the time.